

ABSTRACT

A hydrocarbon fuel processing reactor for generating a hydrogen-enriched reformate from hydrocarbons is disclosed. A plurality of shells are arranged coaxially having a gap defined between each of the successive shells, thereby forming a plurality of coaxial zones. The shells are configured to permit heat transfer from one zone to another. Fluid streams for reactions within the reactor are preheated by heat transfer from adjacent zones.

100 12 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95